

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A non-intrusive access control method, comprising the steps of:

acquiring identification of tags existing in a detection area;

determining user roles represented by the tags based on the acquired identification thereof, wherein each user role has been assigned a rank;

retrieving identification of a first tag corresponding to a user role with the highest rank;

acquiring identification of a first tag and real-time circumstance information both related to the a detection area; and

determining whether the first-tag is are permitted based on circumstance identification corresponding to the detection area, the identification of the first tag, and the real-time circumstance information.

2. (Original) The method as claimed in claim 1, wherein the real-time circumstance information comprises user information indicating existence of any other tag in the detection area.

3. (Original) The method as claimed in claim 1, wherein the real-time circumstance information comprises time information comprising at least current time or total time.

4. (Original) The method as claimed in claim 1, wherein the real-time circumstance information comprises physical information indicating status of an object.

5. (Currently Amended) The method as claimed in claim 14, ~~wherein, further comprising:~~

detecting whether water in a thermos is boiling; and

when the circumstance information indicating that the water in the thermos has been boiling, determining that one of the tags corresponding to a low rank is not permitted to stay in the detection area, when a plurality of tags exist in the detection area, a tag thereof corresponding to the highest level user role among the user roles of the tags is identified as the first tag representing the tags.

6. (Currently Amended) The method as claimed in claim 14, further comprising detecting water level in a bathing pool as the circumstance information, ~~wherein the identification of the first tag corresponds to a user role, as one of a plurality of user roles corresponding to a plurality of levels.~~

7. (Currently Amended) The method as claimed in claim 16, wherein the first tag is not permitted to stay in the detection area, further comprising determining that the first tag is permitted; under a condition where ~~n a plurality of tags exist in the detection area, and a tag thereof corresponding to a user role with higher rank than the user role of the first tag exist and is permitted to stay in the detection area.~~

8. (Original) The method as claimed in claim 1, wherein the corresponding circumstance identification of the detection area corresponds to a circumstance role, as one of a plurality of circumstance roles with hierarchical relationship, each comprising at least one circumstance attribute.

9. (Currently Amended) The method as claimed in claim 8, further comprising defining the hierarchical relationship based on the circumstance attribute ~~before the determining step.~~

10. (Original) The method as claimed in claim 1, wherein the determining step is based on one or more policies each recording the relationship of user role, circumstance role, real-time circumstance information and permission.

11. (Original) The method as claimed in claim 10, wherein the policies is presented in extensible markup language (XML) format.

12. (Original) The method as claimed in claim 10, further comprising the steps of:
searching for policies related to the circumstance identification corresponding to the detection area, the identification of the first tag and the real-time circumstance information;
determining the first tag is not permitted when no policy allowing permission is located;
and

determining the first tag is permitted when at least one related policy with permission and no related policy denying permission is located.

13. (Currently Amended) An non-intrusive access control system, comprising:
a sensor for acquiring identification of ~~a first tag~~ and real-time circumstance information ~~both related to~~from a detection area; and
a computing device for determining user roles represented by the tags based on the acquired identification thereof, wherein each user role has been assigned a rank, and the computing device retrieves identification of a first tag corresponding to a user role with the highest rank and determines ~~determining~~ whether the ~~first tag~~ is ~~is~~ are permitted based on circumstance identification corresponding to the detection area, the identification of the first tag, and real-time circumstance information.

14. (Original) The system as claimed in claim 13, wherein the real-time circumstance information comprises user information indicating whether another tag exists in the detection area.

15. (Original) The system as claimed in claim 13, wherein the real-time circumstance information comprises time information comprising at least current time or total time.

16. (Original) The system as claimed in claim 13, wherein the real-time circumstance information comprises physical information indicating status of an object.

17. (Currently Amended) The system as claimed in claim ~~43~~16, further comprising a physical sensor detecting whether water in a thermos is boiling, wherein when the circumstance information indicating that the water in the thermos has been boiling, determining that one of the tags corresponding to a low rank is not permitted to stay in the detection area~~wherein, when a plurality of tags exist in the detection area, the computing device treats a tag corresponding to the highest ranked user role among the user roles of the tags as the first tag representing the tags.~~

18. (Currently Amended) The system as claimed in claim ~~43~~16, further comprising a physical sensor detecting water level in a bathing pool as the circumstance information~~wherein the identification of the first tag corresponds to a user role, as one of a plurality of user roles corresponding to a plurality of levels.~~

19. (Currently Amended) The system as claimed in claim ~~13~~18, wherein the first tag is not permitted to stay in the detection area, and the computing device further determines that the first tag is permitted under a condition where~~when a plurality of tags exist in the detection area, and a tag thereof corresponding to a user role with higher rank than the user role of the first tag exist and is permitted to stay in the detection area.~~

20. (Original) The system as claimed in claim 13, wherein the computing device performs the determination step based on one or more policies each comprising the relationship of user role, circumstance role, real-time circumstance information and permission.

21. (Original) The system as claimed in claim 20, wherein the computing device further searches for policies related to the circumstance identification corresponding to the detection area, the identification of the first tag and the real-time circumstance information, and determines the first tag is not permitted when no related policy allowing access is located or determines the first tag is permitted when at least one policy with permission and no related policy denying access is located.

22. (Original) The system as claimed in claim 15, wherein the non-intrusive access control system comprises a radio frequency identification (RFID) system.